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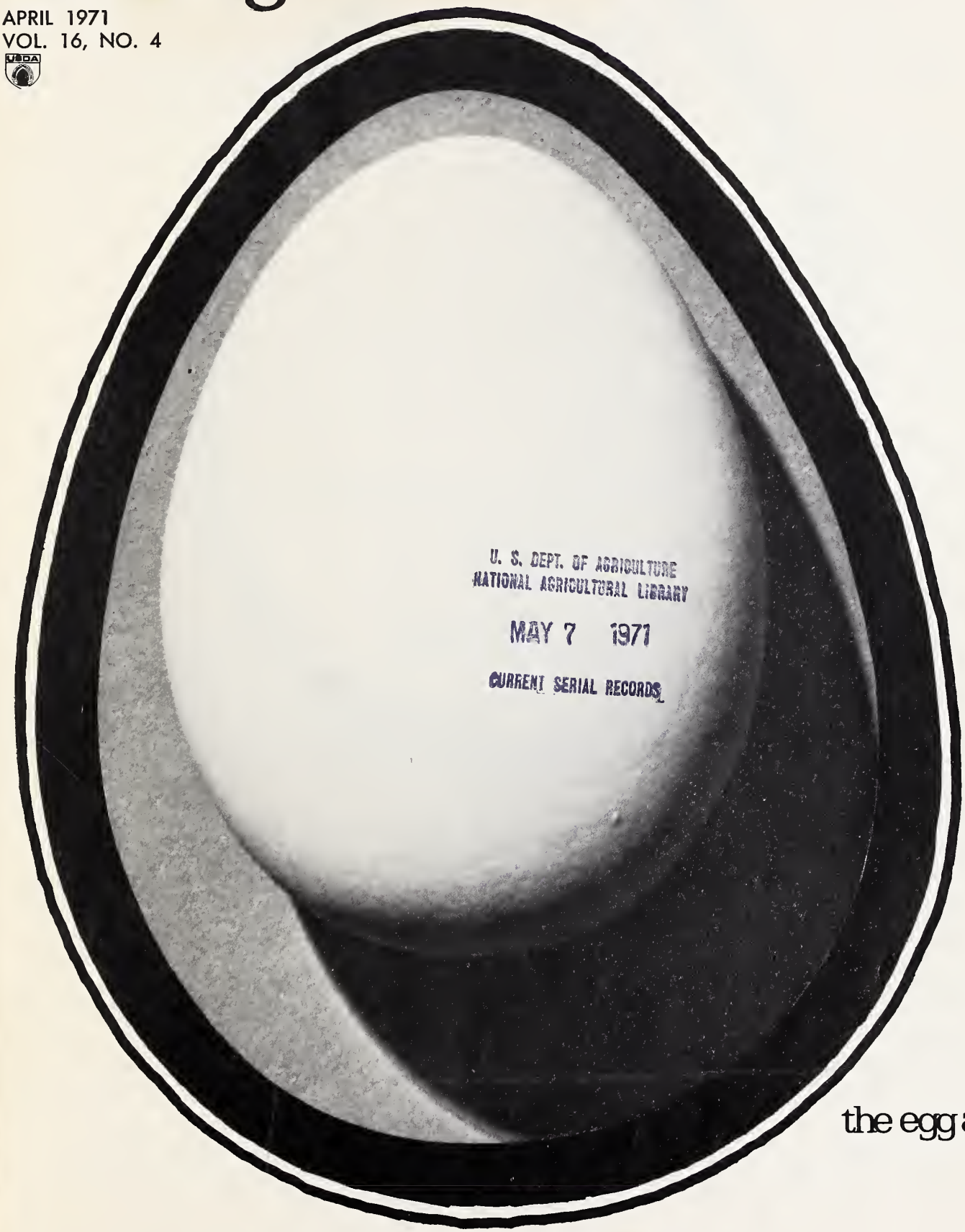

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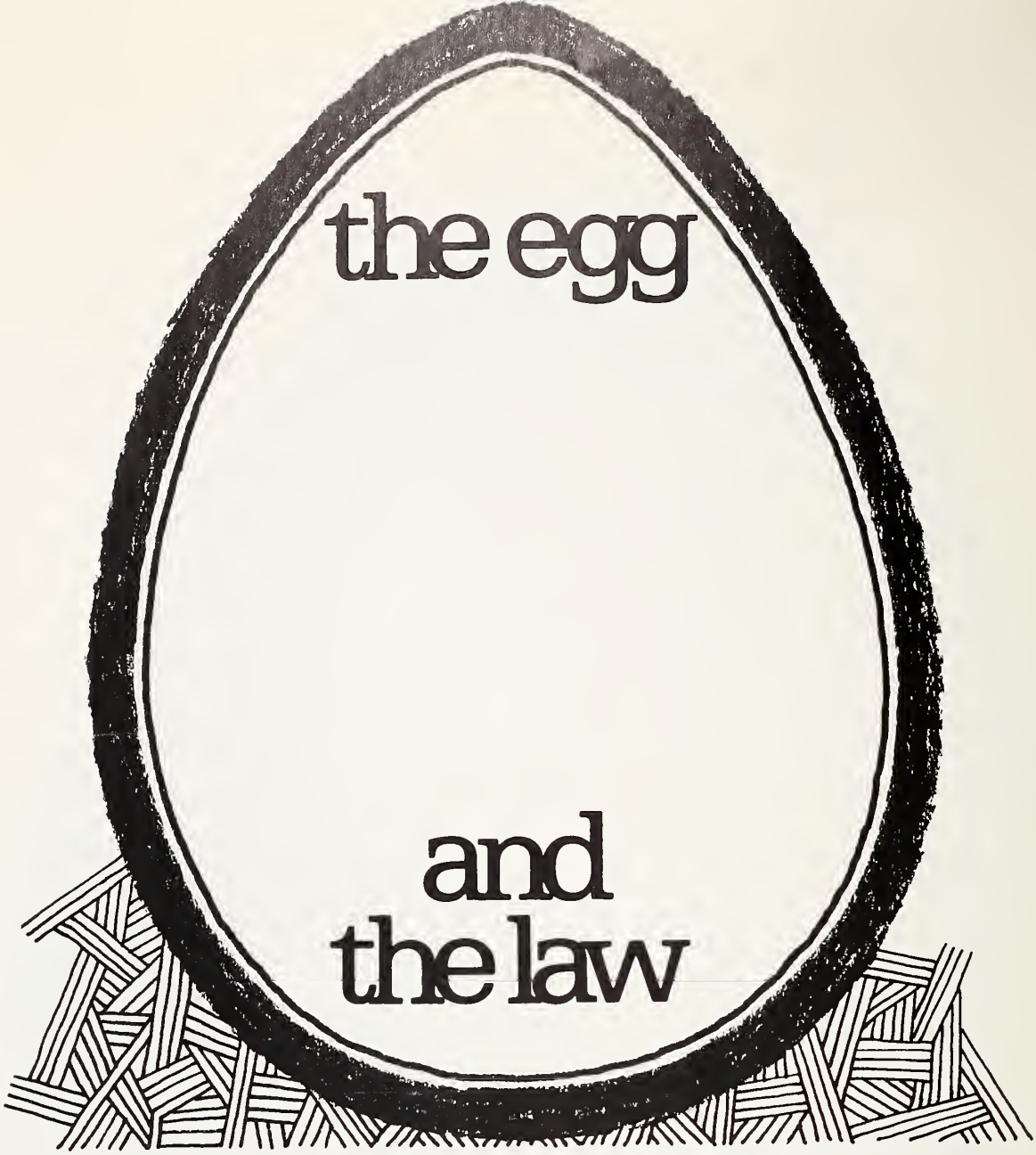
the egg and the law



CONSIDER THE VAST opportunities open to a typical egg today, compared to what its counterpart of a hundred years ago had to look forward to.

In 1871, the egg's life span was relatively simple and short—the move from family hen house to family frying pan taking at most, a few days.

But what about the egg of 1971? There is no end to its opportunities for travel and meeting people—not to mention getting into the rapidly expanding egg processing business that wasn't even around at the turn of the century.

It's not impossible for a Georgia egg to be served in New York or to be processed in Tennessee into a dried, frozen, or liquid egg product. And with today's efficient transportation speeding eggs to their destination, high quality can be maintained over long distances.

The route of most eggs through our modern egg marketing system is so sophisticated that consumers need not worry where the eggs they had for breakfast came from. In fact, we eat many foods like mayonnaise, cake mixes, and egg noodles without even realizing that they contain egg products.

Since we can't always thoroughly check the quality of the eggs and egg products in the foods we buy, USDA's Consumer and Marketing Service is doing it for us. For many years C&MS has provided voluntary shell egg grading and voluntary egg products inspection service. Under the Egg Products Inspection Act, signed into law on December 29, 1970, egg products processors will be required to operate under continuous USDA inspection by July 1, 1971. Provisions of the Act regulating the disposal of certain types of under-grade shell eggs will go into effect on July 1, 1972.

Both the Act and the egg marketing system are complex. To understand exactly how, when, where, and why the law will apply in the marketing chain, let's take a look at what eggs go through before reaching the consumer. □

Through the Marketing Maze

EGG PRODUCERS IN 1969 grossed an income of almost $2.3 billion from about 69 billion eggs.

What happened to them all between hen and household?

The henhouse where it all begins is not always a folksy down-on-the farm chicken coop. A large egg farm can have a million or more laying hens, so it's not unusual for several thousand hens to share the same henhouse.

Those two eggs you had for breakfast this morning represent an average of over 72 "chicken hours" for one of more than 313 million egg-producing hens on U.S. farms. A hen earns its keep by producing an average of 220 eggs per year.

These eggs go to market, so to speak, but "market" has come to mean more and more a process, rather than just a place. Throughout the process the new Egg Products Inspection Act will be felt.

Beginning July 1, 1972, the Act will control the disposition of certain types of "restricted" eggs that can be a health problem. A look at the shell egg's long road to market will help us understand what this means.

An egg producer has a number of outlets for his eggs. About 75% of the time, he sends them to assembler-packers who ship them on to retailers and institutional buyers.

Occasionally, packers may use a broker as an agent to sell their eggs. A producer-packer may also sell the eggs directly to "breakers".

In some localities producers have formed cooperatives to market their eggs. By bringing a large volume of eggs together, cooperatives can provide more efficient packing and more effective bargaining.

Transporting Eggs

Often a producer or packer must ship his eggs long distances. (This is true in "surplus" States where more eggs are produced than needed, and the excess is shipped to "deficit" States.)

Today most eggs go by refrigerated truck. At one time, shell eggs were shipped by rail; but trucks have proved faster and less expensive, and offer more flexibility.

Although the necessity for shipping eggs has remained fixed, the geographic patterns of transporting have changed significantly in the past several years.

Egg production has increased markedly in California and in some Southern States, while it has decreased in some Midwestern States. New Jersey, long a "surplus" State, has become a deficit producer. These changes, understandably, have a great effect on who ships his eggs where.

Grading to Simplify Trade

The assembler-packer or producer-packer is responsible for two very important steps in the marketing process: sizing and grading. These two steps enable sellers across the Nation to use a uniform trading vocabulary.

Sizing and grading are part of a highly complicated and mechanized process. At a typical large packing plant, eggs arrive by the truckload to begin a conveyor belt journey through the plant.

As eggs are removed from the case, an operator removes any broken or leaking eggs and sends the tray onto another belt. Here a vacuum machine gently lifts the eggs and deposits them on rollers which propel them through washing and sanitizing operations.

The clean eggs roll over strong candling lights which make it easy to spot any defective or cracked eggs. These are removed by hand.

The eggs are then automatically weighed and channeled according to size. As they go down the line, the eggs are cartoned and lot numbers are applied. Once in packing cases, the eggs are refrigerated to await shipment.

In plants under the USDA Federal-State cooperative grading program, cartons carrying the official USDA grade mark are checked by an official grader to assure compliance with grade and size requirements of the USDA standards.

Eggs are sized into six categories: Jumbo, Extra Large, Large, Medium, Small, and Peewee. The size of the egg has no bearing on its quality, but refers to the minimum weight per dozen. (Grades for quality are U.S. Grade AA, A, and B.)

With these standards of size and quality, the prospective buyer knows

what to expect when a seller offers, for example, U.S. Grade A Large eggs.

Under the Egg Products Inspection Act, for eggs to be moved in interstate or foreign commerce, States may not require use of standards of quality or weight that are different from the U.S. standards. This becomes effective July 1, 1972.

Essentially, the Egg Products Inspection Act will affect all phases of egg marketing, from the producer to the last person handling the eggs before they go to the retail store or to consumers.

Restricted eggs, which include incubator rejects and eggs that are dirty, leaking, inedible, or "checked" (cracked) are to be diverted from retail channels after July 1, 1972.

The Act will prohibit the buying, selling or shipping of such eggs unless they are denatured or otherwise marked to show they aren't for use in human food. The exception is checked or dirty eggs, which may be shipped to an official egg products processing plant where they can be properly segregated and processed.

The Act will also require a producer, packer, handler, shipper or distributor of shell eggs to keep records so USDA and cooperating States can keep track of eggs being marketed.

Exempted from these requirements under certain conditions will be:

- egg producers with flocks of less than 3,000 hens;
- egg producers who sell eggs from their own flocks directly to household consumers;
- egg packers who sell eggs on their own premises directly to household consumers;
- egg shipments which contain no more restricted eggs than are allowed in the official standards for U.S. consumer grades.

Marketing is not just a straight path to your table. Rather, it's an intricate map with innumerable routes open to the producer and to each marketing agent along the way.

The new Egg Products Inspection Act is designed to assure that only clean sound shell eggs move along that complicated path from farm to you. □

Onto the Processing Line

WHAT BEGAN AS AN EGG salvage operation 50 years ago has blossomed into an important agricultural industry.

The sale of frozen eggs was originally an effort by egg producers to find a market for their cracked and soiled eggs that weren't suitable for sale in shell egg form.

By the mid-1930's people were buying more and more ready-to-serve foods. This trend led to a demand on the part of food manufacturers for more convenient raw materials—such as liquid, frozen, and dried eggs.

With this growing market of commercial bakeries and processed food manufacturers, egg processing became an industry in its own right—not merely a sideline of shell egg producing.

Equipment and processes were developed to produce dried eggs—a real plus for the processing industry. Dried eggs could be packaged and transported to distant destinations at lower cost than liquid or frozen eggs could. This opened up new outlets for egg products.

The military and lend-lease demands of World War II caused dried-egg production to increase a thousand-fold—reaching a peak in 1944.

After a considerable decline in production in post-war years, the industry was given a boost by the introduction of breaking machines. These machines replaced hand labor for breaking and separating eggs and made increased production possible.

Because of growing demand by food manufacturers and consumers for convenience foods, the market for egg products has continued to expand. And trade sources predict that processing will increase rapidly in the future.

Ten years ago about 9 percent of eggs produced were processed. In 1968, 514 million dozen eggs—one in every ten—were processed into dried, frozen, or liquid egg products.

These products went to bakeries, confectioners, various food manufacturers, institutions, and consumers interested in the time, space, and money savings of processed eggs.

Over the past 15 years, per capita consumption of egg products has risen

In many modern processing plants, machines like this one (far left) mechanically break eggs out of their shells. Egg yolks, separated from the whites, (left) whiz down stainless steel chutes en route to the blender. This huge blender (below) mixes the egg yolks with other ingredients into special blends for bakeries and other food manufacturers.

36 percent. With this increasing consumption, it is essential that shell eggs going into processing be clean and wholesome.

There are certain types of eggs such as "dirties" and "leakers" that cannot be used for breaking because they could constitute a serious health hazard. Salmonella or other bacteria, which may be carried on such eggs, are a potential source of contamination when the eggs are broken.

To assure buyers and consumers that they are receiving wholesome egg products, USDA's Consumer and Marketing Service for years has operated a voluntary inspection service for which plants pay a fee. Eighty percent of egg products are currently produced in plants operating under this continuous inspection system.

The recently enacted Egg Products Inspection Act will require all plants to operate under inspection after July 1, 1971. After that date, however, inspection will be paid for by the U.S. Government. Plants requesting holiday and overtime work will be required to pay for that special service.

Mandatory inspection, which applies equally to plants shipping in intrastate, interstate, or foreign commerce, will be virtually the same as that now offered under USDA's voluntary program. All operations, facilities, and sanitary practices in egg processing plants must be approved, and the supervision of an official inspector will be required at all times.

However, if a plant's facilities, sanitation, operating and labeling procedures meet USDA regulations, and if the plant receives and breaks only eggs containing no more restricted eggs than allowed in standards for U.S. consumer grades, it may apply for an exemption. If exempted, a plant would not be required to have continuous inspection, although it will be subject to periodic inspection.

The new law will require inspected egg products to carry the USDA inspection mark, which is now used on products inspected under the voluntary program. To appreciate what this mark means, let's look at what's involved in egg products inspection.

The key to inspection is the official inspector. Inspectors may be either Federal or State employees but each inspector is trained and licensed by USDA and works on a resident basis. This means that whenever the plant is operating, the inspector is on duty.

In a typical egg products plant, the inspector is involved in all aspects of processing. He often must be "up with the chickens"—starting his workday before dawn. He has to be one of the first on the job in order to check the entire plant and all equipment before work begins.

Sanitation receives priority in the inspector's examinations. Equipment must be properly cleaned and sanitized before use. Premises, shipping and receiving areas, and freezers must also be clean.

Because eggs are so susceptible to contamination once they are broken, the inspector must make sure that intake and exhaust fans and air filters are clean and operating correctly throughout the plant before egg breaking can begin.

As soon as these checks are completed, plant operations can begin. From beginning to end, from shell egg to egg product, wherever the eggs go, the inspector is there—has been there

The USDA inspector (far left) drills into frozen egg products to check their appearance and condition. Since temperature is such a crucial quality factor for liquid eggs, the inspector (upper left) runs periodic temperature checks on them before they leave the official plant. Who said machines can't talk? This control board (left) in a highly mechanized processing plant conveys information on plant sanitation, equipment and operations by lights, switches, and knobs.

—or will be there, not once but many times throughout the day.

An important aspect of his work is supervising the segregation, washing, sanitizing, and candling of the incoming eggs. It is here that workers carefully examine all of the cleaned eggs as they pass over the intense lights of the candling machine. With the aid of this strong light, they can easily spot any defects in the eggs. Inedible, "loss," and leaking eggs must be removed and destroyed or denatured to prevent their use in food products.

The remaining eggs move into the breaking room where they often are, quite literally, untouched by human hands. The breaking machine efficiently removes the eggs from the shell either as whole egg or separated into yolks and whites.

Stainless steel pipes then carry the liquid eggs through the filtering, churning, pasteurizing, and cooling processes. All inspected egg products are required to be pasteurized as an added safeguard against bacteria.

The whole eggs, whites, or yolks may be used as is or mixed with other ingredients such as salt, sugar, or sirup to make one of the many blends in demand by food manufacturers. The liquid product can then be stored in refrigerated tanks or dried or frozen for future use.

The completion of the processing does not mark the end of the inspector's job. He must continue to run tests on the egg products as long as they remain in a USDA inspected plant.

For instance, even though frozen egg products will keep for long periods of time under proper conditions, there is always a chance that freezer controls could be off or that the product was mishandled either before or after freezing.

To make sure that nothing has been done incorrectly, the inspector tests the condition of the product before it is frozen and has laboratory tests run on a sample. After the eggs are frozen, he drills into representative samples and again checks the product's appearance and condition.

In the case of liquid eggs, the inspector not only maintains a continuous check on the product while it is in the plant, but he also checks the truck in which it is shipped out of the plant. Liquid eggs are often shipped in huge tanker trucks—some having a capacity of 60,000 pounds of liquid eggs.

Before the tank can be filled, the inspector must examine the interior and supervise its sanitizing. Once his official "OK" is given, machines take over and the truck can be pumped full of liquid eggs in less than 2 hours.

While the tank is being filled, the inspector makes periodic checks on the quality of the product. When it's full, he records the temperature and time of departure on a certificate and seals the intake valve with an official USDA inspection tag.

Where do the eggs go from here? Many go directly to bakeries, food manufacturers, and institutions. Others travel to processing plants which buy liquid eggs for further processing.

Whoever the receiver is, he can be sure he is getting a wholesome product if it is from an officially inspected plant. □

Into the Shopping Cart

THE GROCER'S CASE is the consumer's action arena. Here she makes the dollar decision that can make or break not only the family food budget but even whole food industries. She makes that decision without having to worry about the wholesomeness of the foods she chooses among—and usually with the advantage of a wide range of choice and available information.

The recent Egg Products Inspection Act strengthens that decision. For the most part, the Act deals with the one in ten eggs that is processed into liquid, dried, or frozen form. In a sense, this one is a "subtle" egg. Americans are familiar with it in a host of products from the convenient cake mix to the distinguished Chinese egg roll.

As for the other nine of every ten eggs produced, two of these are really strangers to the retail market. They are used by restaurants and institutions and to fill the needs of hatcheries.

But the remaining seven—the shell eggs that every food shopper knows so well—are very "unsubtle" in their refrigerated cases. They are generally well marked as to grade and size—certainly an aid to decision on the part of the knowledgeable consumer.

The Egg Products Inspection Act does more to guarantee clean and sound shell eggs than has any other Federal legislation to date. The Act requires that by July 1972 all shell egg plants packing for the consumer shall be checked at least each calendar quarter to ensure that only sound, clean eggs are going to retail stores.

But what of choosing among the quality levels, and the size and price variances that complicate retail shopping?

The grocer's sign reads: U.S. Grade A Extra Large, 64¢—U.S. Grade A Large, 58¢—U.S. Grade A Medium, 53¢.

Confusing? Not necessarily.

Three standards of quality—AA (or Fresh Fancy), A, and B—are applied to cartons of eggs packaged in plants operating under the Federal-State cooperative grading program.

The official USDA grade shield on the carton tells that carton's story—a history of Federal-State supervision through the grading and packing operations, and quality and size certification at the time of grading.

USDA's grading program for shell eggs is a voluntary program conducted by the Consumer and Marketing Service's Poultry Division, and is paid for by the user.

One guide for choosing among the respective quality grades of AA, A, and B, is use. When appearance counts, as in frying or poaching, you'll want the firm, high yolk and high thick white of U.S. Grades AA or A. U.S. Grade B eggs, with their less attractive, flatter white and yolk are good for general cooking and baking.

There are six USDA sizes for eggs, each based on the minimum weight per dozen. Most retailers, however, stock only the three most plentiful sizes—Extra Large (27 oz. per dozen), Large (24 oz.), and Medium (21 oz.).

Although size and quality grade are unrelated (large eggs, for example, may be of high or low quality, and high-quality eggs may be either large or small), both do influence a third, and very important decision-making factor—price. And there is a way of getting more for your money!

If there is less than a 7-cent price spread per dozen eggs between one size and the next smaller size in the same grade, the larger size is the better buy.

For instance, at 64¢ per dozen, U.S. Grade A Extra Large eggs represent a better buy than 58¢ U.S. Grade A Large. Large eggs at 58¢ would be a better buy than Medium eggs at 53¢.

That takes care of your shell egg shopping, but don't forget that "subtle" processed egg. It's always there, too—egg products are an important ingredient in the cake and pudding mixes, macaroni, mayonnaise, ice cream, and bakery products that have so popular a place in the American diet. And that popularity means satisfaction with and confidence in the wholesomeness of these products.

The Egg Products Inspection Act will assure you of that wholesomeness. It requires that by July 1971 all egg processing plants operate under the mandatory continuous inspection of a USDA-licensed Federal or State inspector.

This safeguard of wholesomeness comes at a time of experimentation and expansion. For several years food processors have been testing and merchandising new convenience and specialty egg items, such as instant scrambled eggs, packaged chiffon pies, and canned eggnog.

The Egg Products Inspection Act will parallel the growth of this changing industry with constant protection of the consumer's right to an inspected and wholesome product.

Although most egg products are processed into other foods (e.g., cake mixes), frozen and dried egg products are available at the retail level in some areas. Camping or sporting goods stores, for example, and other specialty markets, may carry dried-egg solids for use by campers or hunters.

Today's heaviest user of egg products is the large quantity food buyer and the commercial manufacturer of food products. USDA, too, is buying dried egg mix to supplement the diet of needy families with the egg's nearly perfect protein plus vitamin A, iron, riboflavin (vitamin B_2), natural vitamin D, calcium, phosphorus, and thiamine (vitamin B_1).

Egg products are versatile. They help to meet the complex needs of quantity buyers, institutional feeders, and the American family—certainly a tribute to the economy, efficiency, and nutritional value of this space-age food! □

WHAT EASTER CELEBRATION would be complete without the traditional Easter egg? Although today eggs and Easter seem to be a natural pair, the egg was a popular holiday symbol long before the religious celebration of Easter.

The use of the egg as a symbol of the Christian Easter probably evolved from numerous pre-Christian festivals and legends. Since Eastertime coincided with the pagan spring festivals, the festive egg was a natural carryover into the Easter festivities.

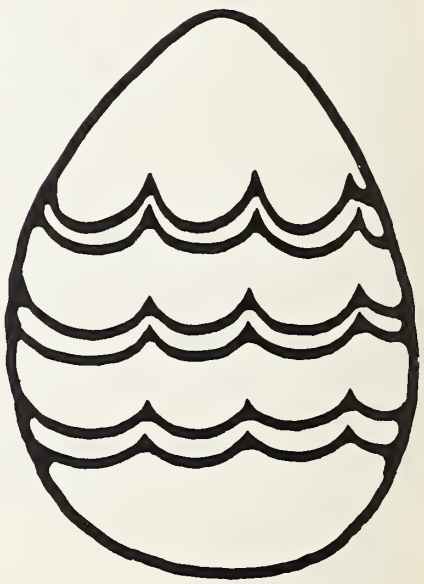
Perhaps one of the oldest of the early legends is the ancient Hindu myth of the "World Egg." This story maintains that the world created itself from a giant egg which split in half—one part forming the earth, the other, the sky.

Throughout history, the symbolic egg keeps occurring. In early religions the egg was a symbol of the fertility of spring, and was a popular gift at annual spring festivals in Egypt, Persia, Greece, and China.

Among ancient Jews, the egg symbolized deliverance from bondage in Egypt, and was part of the traditional table setting at the paschal feast.

After it was adopted by the early Christians, the Easter egg crossed many international borders with the spread of Christianity. In Easter-day games in Mesopotamia, eggs were stained red in memory of Christ's blood, and a few were occasionally colored yellow and green as a tribute to spring.

Eggs assumed an important role in



Oxford, England, at the annual egg feasts in the early 14th century. According to custom the townspeople abstained from eating eggs for a week beginning the Saturday before Ash Wednesday. At the end of this "cleansing week" they celebrated with a great egg feast.

In the 17th century it was customary for the people of the British Isles to write messages on eggs at Eastertime and send them to distant friends and relatives. Pope Paul V, upon request, wrote a special blessing for the eggs used in Scotland, Ireland, and England. In Ireland, the Lenten fast is still broken at dawn on Easter day with a traditional meal of eggs.

Italy is also rich in Easter egg lore. Italian families take their eggs to church on Easter to be blessed by the parish priest. At the Easter feast the next day, the hard-cooked eggs are placed on huge chargers, or platters, in the center of the table. Since the custom of paying calls on Easter Sunday afternoon is very popular throughout southern Europe, a single family may have hundreds of eggs ready. Everyone who enters the house during the holidays is offered at least one blessed Easter egg. No one may refuse this symbol of the Resurrection without offending his host.

The children of Tyrol go from farmhouse to farmhouse on Easter Eve singing carols. They carry baskets for the brightly dyed and decorated eggs with which the farmers' wives reward them for their songs.

While nearly every country has traditions and customs centering around the Easter egg, perhaps the most beautiful eggs in the world are those made in Ukraine villages. For generations, the villagers have worked out intricate designs resembling stained glass windows. Covering a single egg with these designs, a technique known as batiking, often requires several days of very patient tinting. On Easter Eve the eggs are blessed in a special ceremony in preparation for the Easter feast.

The tradition of Easter eggs migrated to the United States along with the Easter hare and the early English settlers. Another custom which crossed the sea was that of rolling colored Easter eggs.

The White House Easter egg roll was actually originated by Dolly Madison on the Capitol grounds on Easter Monday, 1810. When the children were denied the use of the grounds in 1878 during the administration of Rutherford B. Hayes, egg rolling was moved to the White House lawn.

This Easter American children will again join children throughout the world in decorating and receiving gaily colored Easter eggs. Here are some tips you might use this year to become an Easter "eggspert."

For special occasions as well as for everyday use, it is important to buy eggs according to U.S. Department of Agriculture grade and size. You will find the highest quality eggs in cartons marked USDA Grade AA (or Fresh Fancy Quality) and USDA Grade A. Only eggs carrying the official USDA grade shield on the carton have been packed under Federal-State supervision.

USDA's Consumer and Marketing Service also grades eggs for size as well as for quality. The sizes usually found in the supermarket are Extra Large, Large, and Medium. The size of the egg does not indicate quality.

When you take your eggs home, you should always refrigerate them to maintain high quality.

To hard-cook eggs lower them carefully with a spoon into boiling water. Reduce the heat to simmering and cook for 20 minutes. Plunge the eggs at once into cold water and leave until cold.

Now is the time to dye your eggs. Use only pure food dyes, and carefully follow the instructions on the package.

Once dyed, the Easter eggs should be stored in the refrigerator until it is time to place them in the Easter basket. Then it is best to keep them away from hot places like radiators, and replace them in the refrigerator for storage after the hunt is over. Eat them within a day or two.

If you have an abundance of hard-cooked Easter eggs, don't despair. The egg is a very social food and mixes well with chicken, ham, tuna, and many vegetables to form taste-tempting casseroles. Chopped eggs are also good in sauces, salads, dressings, and sandwich fillings.

So your Easter eggs can turn into a double treat—a beautiful surprise on Easter morning and nutrition-packed meals afterwards. □

Dressing Up for Easter

Go GungHo Over Oriental FOODS

PULL YOUR SOUVENIR-of-Chinatown chopsticks out from the back of that kitchen drawer, and serve an oriental dinner tonight.

It's easy with the wide variety of heat-and-serve Chinese and Japanese foods on your grocer's shelf . . . .

Egg rolls, sweet and sour pork, sukiyaki, egg foo yung—their names alone bring to mind thoughts of Singapore, Tokyo, Canton, Hong Kong, exotic places far removed from our rush-a-round world. And it's so easy to achieve this change of pace.

Plan a tempting menu. As an appetizer, egg rolls served with sweet and sour sauce help set the mood. If the "egg rolls with meat" you find at the store bear the mark of Federal inspection on their label, they must contain at least 10 percent fresh meat before they're cooked in the plant. That's what USDA's Consumer and Marketing Service requires under Federal inspection. Egg rolls are always a tasty, nutritious appetizer.

Or, if you wish, start with steaming hot wonton soup. Under Federal standards, wonton must contain at least 5 percent meat on a freshweight basis. Put a small cruet of soy sauce on the table, in case anyone wants to add a dash of it to his soup.

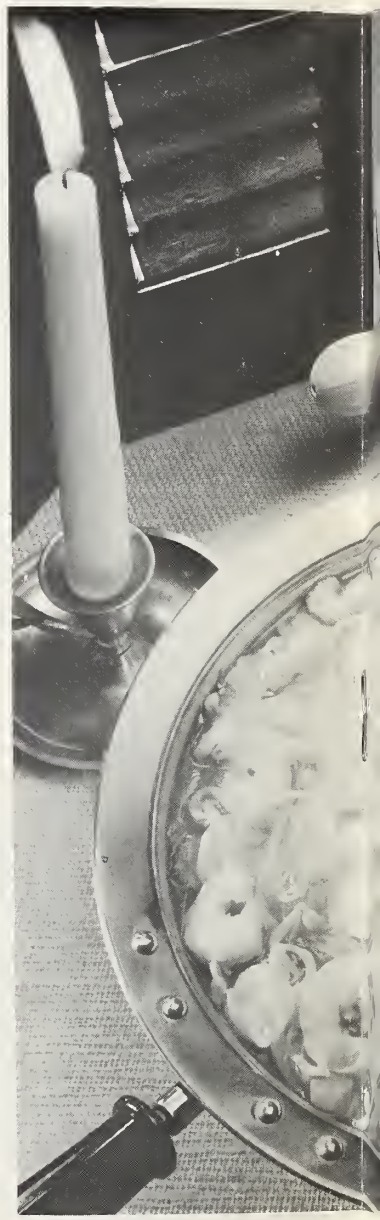
You'll find a wide variety of entrees at your grocer's, and at least one of them is sure to suit your family's needs and tastes.

Succulent sweet and sour pork or beef, with fruits and spices, is always an extra-special main dish. USDA requires that this product, to be labeled "sweet and sour pork (or beef)," contain at least 25 percent fresh uncooked meat or 16 percent cooked meat, and at least 16 percent fruit. Pineapple, peppers, carrots, and tomatoes add to the pungent flavor of this favorite.

Egg foo yung is another delicious food from the Orient. If you're buying "egg foo yung with meat" that bears the official inspection mark on its label, you can be sure it contained at least 12 percent meat on a freshweight basis when it was made.

Sukiyaki conjures up thoughts of graceful Japanese girls serving guests at low tables, with a background of beautiful silk-screen panels.

USDA requires that sukiyaki contain at least 30 percent meat before the processor cooks it. Served over rice, this is a hearty dish for the



meat-lovers in your family.

"Fried rice with meat," another Oriental favorite, must contain at least 10 percent fresh meat when it is made.

Probably the best known Oriental foods are chop suey and chow mein. Children and adults alike love their crunchy texture. USDA has standards for the meat and poultry contents in these foods, too.

To pass Federal inspection, "chicken chop suey" must contain at least 4 percent cooked, deboned chicken. But "chop suey with chicken" need contain only 2 percent chicken meat. Another example of how reading the label and knowing Federal requirements can help you know what you're paying for!

If you prefer meat rather than poultry in your chop suey, the label can still be a valuable guide. "Chop suey (American style) with macaroni and meat" must contain at least 25 percent fresh meat, and "chop suey vegetables with meat" must have a minimum of 12 percent meat. The latter might make a tempting side dish for your menu.

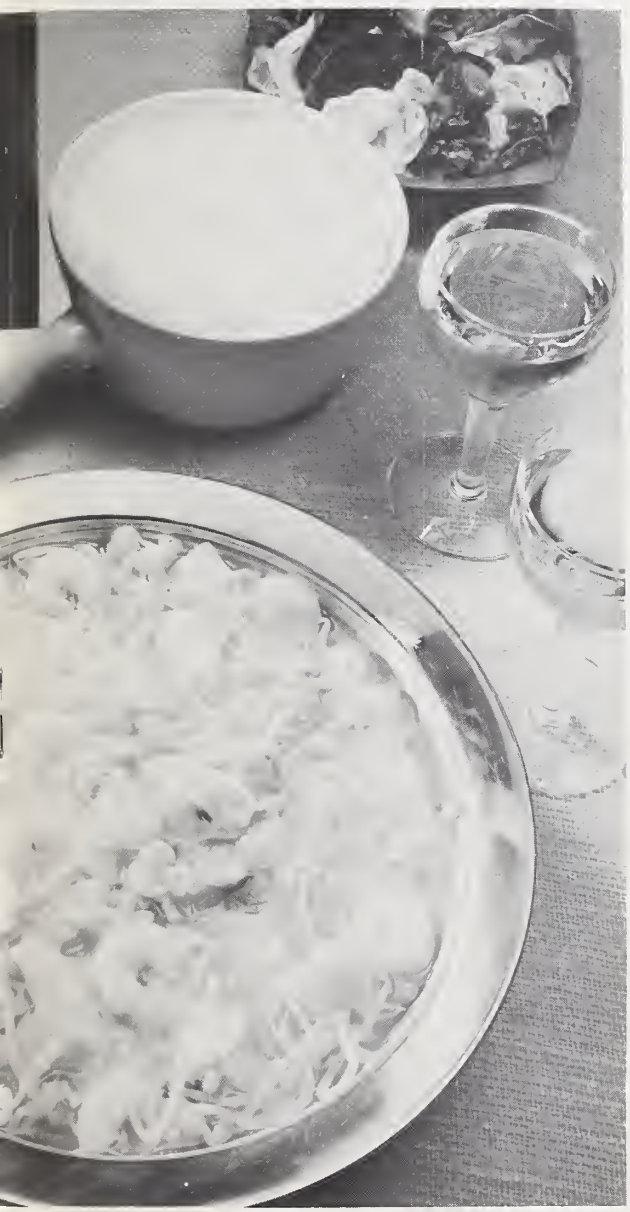
Chow mein, too, can be made with either meat or poultry. "Chicken chow mein, without noodles" contains at least 4 percent cooked, deboned chicken meat. "Chow mein vegetables with meat" has at least 12 percent fresh meat before it is cooked.

Knowing standards such as these can be a big help when you plan a meal using foods of faraway places—especially if you're not as familiar with their ingredients and nutritional values as you are with foods from your native land.

Remember that the USDA inspection mark on foods containing meat and poultry means they've passed tests for wholesomeness and were produced in plants meeting established USDA sanitation and facilities requirements. And it means, too, that they are truthfully labeled and meet minimum standards for meat and poultry content.

So use these standards when you plan your festival of foods from the Orient. Then, top your dinner off with fortune cookies or almond cookies, perhaps a dish of sherbet, and of course, plenty of tea.

Your family will say "ah-so!" when they realize what a smart shopper you are! □



By Dr. Harold M. Trabosh

CHEMICAL OR BIOLOGICAL contamination of the environment is a major issue across the country, and the throught of residues in our meat and poultry products concerns all Americans. As a result, special control programs operated by USDA's Consumer and Marketing Service were designed to protect the consumer and serve as a guideline for producers.

The meat and poultry inspection acts authorize USDA to inspect all meat and poultry sold in interstate commerce. Fresh meat and processed products must be from healthy animals, be processed under sanitary conditions, be wholesome, and accurately labeled. Unless the live animal shows clinical signs—which is not always the case—in-plant inspection can't determine the presence of residues without laboratory backup.

Realizing the problem, USDA is operating a two-pronged program to monitor possible residues in meat and poultry.

In the first part, the objective phase, meat, or poultry samples are randomly selected from animals slaughtered at the plant and analyzed in laboratories. The surveillance is on a continuous or intermittent basis, depending on the chemical, drug, or pesticide in question.

Phase one aids in determining the amount of residues, if any, in edible meat. It also provides information on whether producers are complying with established legal tolerances, and provides an active exchange with other governmental agencies concerned with chemicals and their residues.

The selective phase, on the other hand, consists of analysis *plus* control action when a particular residue, if present, would make the meat unfit for human food. When C&MS inspectors find a detectable residue in meat from a known origin, many forces are set into action.

Federal and State animal health officials and the Food and Drug Administration of the U.S. Department of Health, Education, and Welfare are among those quickly notified. The States, USDA, and FDA have essential roles in assuring that future shipments from the farm do not contain residues beyond the tolerance levels.

By going directly to the farm, they help the owner decide what corrective action to take. They test suspect animals for future shipment to slaughter. And, most important, they educate the farmer to the problems of chemicals and drugs to prevent future excess residues.

In order to establish a functioning program for residue violations, categories were established related to the handling of animals at the plant. A specific tolerance or permissible level (sometimes zero) exists for each chemical, drug, or pesticide.

Depending on the type of violation and the compound involved, appropriate actions are initiated to eliminate the residue and protect the consumer. At various levels within the tolerances, the owners and producers of animals are notified if any approach the violation level. Future lots of animals from the same herd or flock will be monitored to assure consumer protection.

Whenever the farmer is notified of a potential problem, State and Federal assistance is offered in isolating and correcting it.

When a residue exceeds the tolerance level, one of two plans must be completed before animals from the contaminated source are again eligible for slaughter.

Under *Plan A* the owner must present a complete outline of how he will bring the herd or flock into compliance with the tolerance level. It must include specific information and the owner must do the following:

1) List the total number of animals to be slaughtered.

2) Agree to withhold his animals from slaughter while samples are analyzed.

3) Choose the laboratory, and inform C&MS of the method of analysis to be used. This lab must notify C&MS of the results.

4) Submit duplicate samples to C&MS for analysis by a government approved lab.

C&MS notifies the owner if submitted samples are in compliance. The remaining animals may then be presented for slaughter at the pre-selected plant.

Animals accepted for slaughter are sampled again by C&MS at the plant. Sample carcasses and parts are retained until laboratory results are available. The rest of the carcasses can then be released.

If the monitored samples are in compliance, the owner's or producer's procedure is accepted. If not, the owner's plan is rejected and Plan B is used.

Under *Plan B,* the owner must notify C&MS when the animals will arrive at the plant. The C&MS veterinary inspector then:

1) Selects the required number of samples based on the size of the lot.

2) Permits the slaughter of the selected animals, but retains the remainder of the lot. If the owner desires, all animals may be slaughtered and the carcasses and parts retained.

3) Individually packs and submits the samples to the government approved lab.

If more animals are presented for slaughter by the same owner before the lab results come back, they too must be sampled and analyzed under Plan B.

Both plans require analyses on two successive lots from the same owner before he may make future shipments of livestock from his farm without retention. Here, again, State and Federal help is offered in correcting the problem.

The surveillance program for chemicals, drugs, and pesticides is designed to *monitor* residues. However, the primary responsibility for obeying the tolerance levels rests with the individual producer.

It is most often at the farm where —by accident or lack of concern— pesticides, drugs, and chemicals are misused. This is against the law, and FDA has the authority to prosecute violators under the Federal Food, Drug, and Cosmetic Act. In the long run, the farmer must learn the correct use of these materials, and USDA will continue monitoring residues as part of its responsibility to assure wholesome meat and poultry. □

The author is a staff officer with the meat and poultry inspection program, C&MS, USDA.

PACA pointers

SURPRISE PACKAGES are no fun when the contents are not what the label says they are. Furthermore, the Perishable Agricultural Commodities Act prohibits such "surprise packages" when fresh and frozen fruits and vegetables are sold to commercial buyers.

This Act does not require any specific container markings. However, many State statutes, as well as the Federal Food, Drug, and Cosmetic Act, and the Fair Packaging and Labeling Act have minimum marking requirements.

What the PAC Act does require is that all information on the labels of fresh and frozen fruits and vegetables, which are shipped in interstate or foreign commerce, be correct. Among the types of information commonly shown on such containers are the commodity, quality, size, weight or count, and place of origin.

Misrepresentation of this information is unlawful. Since a shipper may accidentally or unknowingly misrepresent his produce, the best way he can be sure his labels are correct is to have them inspected by the Federal-State Inspection Service before shipment.

USDA's Consumer and Marketing Service, which enforces the PAC Act, reports that the most frequent violations involve incorrect grades or a misrepresentation as to the State where the produce originated.

Since a small number of secondhand containers or bags are still used in some areas, PACA specialists advise that such bags must be turned inside out or the original markings obliterated. All old labels or marks on boxes or crates should be painted out or removed.

Misbranding is a serious practice. Shippers or sellers who misbrand products only hurt themselves, since buyers often reject such shipments.

However, misbranding can create another problem besides deluding buyers or dumping inferior merchandise on the market. It can create suspicion and mistrust between those dealing in the produce industry. □

plentiful foods for April

CANNED PEACHES AND eggs are cofeatured on USDA's Plentiful Foods List for April.

Other commodities on the list are potatoes, prunes, pork, turkeys, flounder and sole fillets, dried peas, peanuts and peanut products, canned ripe olives, and canned applesauce.

The combined inventory of canned clingstone and freestone peaches is one of the largest on record, assuring ample stocks.

This delicious fruit can be served hot or cold in a variety of ways. It can also be used with other April plentifuls, such as pork and turkey, for tempting luncheon or dinner combinations. □

Consumers--do you know?

WHEN YOU THAW that chicken you froze last month, allow time to thaw it in the refrigerator, rather than at room temperature, to help assure wholesomeness. And cook it promptly after thawing. USDA inspectors recommend that these rules be applied, where practical, in thawing all frozen meats and poultry. □

WHEN YOU ROAST a chicken, you can either use a meat thermometer or test whether the bird is done by pressing the fleshy part with your fingers, USDA poultry inspectors say. Poultry is done when the meat feels soft. Pink juice in a poultry product indicates it needs further cooking to assure wholesome eating. □

THERE'S A DIFFERENCE between "Chicken Soup" and "Chicken Flavored Soup." The first must contain at least 2 percent cooked, deboned chicken meat, under USDA poultry standards. But there is no minimum requirement for chicken content in chicken flavored soup. □

beware of suspicious seed advertising!

By LaVerne Herink

THIS IS THE TIME of year when many a homeowner is seen juggling packages of lawn seed, trying to determine the best buy in preparation for that spring residential ritual. But what may appear to be the best buy could well result in a poor lawn and an exercise in futility.

If you buy *annual* ryegrass seed to plant a permanent lawn, for instance, you could be wasting money. That kind of ryegrass dies out after the first year or so in the ground.

Annual ryegrass can be useful, though, in a mixture of different kinds of lawn seed. It comes up quickly, giving other, slower growing grasses a temporary protective cover until they mature. And it can be used alone to achieve a quick, temporary cover to prevent soil erosion.

Perennial ryegrass lives for about 3 years, so even it, used alone, won't give you a permanent lawn.

The trick in buying lawn seed, USDA seed experts say, is to read the label and learn something about the characteristics of different kinds of grasses.

A free leaflet, "How to Buy Lawn Seed" (G-169), can help you become a wise buyer of lawn seed. *Write*: Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250. □

Editor's Note

In the "Dial-the-News" directory we published in the February 1971 issue, we did not mean to imply that the first market news telephone answering device was in Denver in 1964. Other offices were using this device prior to that date. For example, it was used for fruit and vegetable market news in Salinas, Calif., and in Phoenix, Ariz., in 1956.

SPRING BRINGS BIRDS back to their nests and home gardeners back to their yards. Garden enthusiasts looking for the best buys should carefully study advertising claims made in seed catalogs and gardening magazines.

The Seed Branch in USDA's Consumer and Marketing Service, which enforces the Federal Seed Act, warns that the buyer should beware of seemingly exaggerated or misleading claims.

False and misleading advertising of seeds, that is disseminated in interstate commerce or through the U.S. mail —whether it is pictorial, written, or broadcast—is a violation of the Federal Seed Act.

False and misleading advertising is sometimes overt and sometimes subtle. For example, seed represented to be hybrid, when it does not meet the definition of "hybrid" under the Federal Seed Act, is an overt violation.

Representing that seed as pure variety, when it is a mixture of varieties is also illegal.

Furthermore, a firm cannot claim its seed is "certified", unless it is certified by a State certification agency. Names of kinds and varieties of seed, referred to in an advertisement, must conform to official names recognized under the Federal Seed Act.

Misleading claims constitute the most frequent violations. Using descriptive terms in association with kind or variety names, when it creates the impression the descriptive terms are part of the kind or variety name, is unlawful. For instance, using the descriptive term "fancy," before the kind name, "red top," so that it creates the impression "fancy red top" is the kind name, is illegal.

Another frequent violation is advertising seed under a brand name, in a manner that creates the impression that the brand name is a variety name. Changing the name of a variety and claiming that it is new and different is also a violation of the Act.

Some cases of false advertising are brought to the attention of the Seed Branch by State seed officials. Specialists within the Branch also review advertising claims in seed journals and catalogs.

The validity of suspicious claims on such factors as yield, insect and disease resistance is determined by referring to results of State Experiment Station tests.

When advertising claims are found to be false or misleading, the Seed Branch ordinarily writes a warning letter to the firm responsible. Since most firms cooperate, it usually isn't necessary to prosecute them in a court of law.

The Seed Branch recommends that two pointers be heeded by farmers and home gardeners: (1) Be suspicious of advertising that seems exaggerated or unrealistic. (2) Obtain information regarding seed you're unfamiliar with from a county extension agent or a State Experiment Station. □

The author is a marketing specialist, Seed Branch, Grain Division, C&MS, USDA.

Make your own table-top exhibit.

A SET OF TEN posters on inspection, buying, and care of meat and poultry has been developed by USDA's Consumer and Marketing Service for use by teachers, food and nutrition specialists, retail food stores and others involved in consumer education work.

The colorful posters, each measuring 15 x 20 inches, "show 'n' tell" key facts about meat and poultry. They cover Federal and State cooperative inspection, labeling, standards, and tips for keeping products wholesome from store to table.

Available from the Government Printing Office for $1.75 per set, the posters tie in directly with five meat and poultry leaflets.

The leaflets also are available from the Government Printing Office at the following prices:

"Meat and Poultry—

—Wholesome for You" (G-170), 10¢

—Standards for You" (G-171), 10¢

—Labeled for You" (G-172), 10¢

—Clean for You" (G-173), 10¢

—Care Tips for You" (G-174), 20¢

A discount of 25% is given on multiple orders of 100 or more copies of the leaflets. Single copies of the leaflets may be obtained free from Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250.

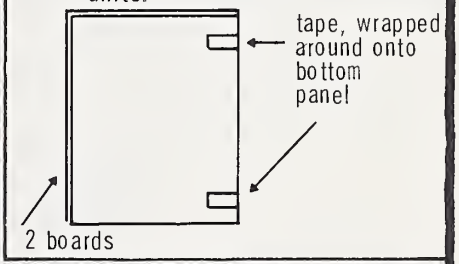
The new lightweight posters are identical to panels in a table-top exhibit developed in 1970 by C&MS. They are ideal for classroom teaching, for point-of-sale consumer education in retail stores, or for posting in any location where shopping information might be needed. If mounted on illustration board or other material, the posters can be converted into an attractive table-top exhibit.

The guide on this page is just one way to assemble these attractive posters. With a little creative thinking you can come up with others. □

1 Order a set of 10 "MEAT AND POULTRY INSPECTION POSTERS" ($1.75) from: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. (A discount of 25% is given on orders of 100 or more sets).

2 Cut illustration board into ten pieces, each 15 X 20 inches--same size as poster. (A 30 X 40 standard-size illustration board can be cut to make four panels. Corrugated cardboard or any other durable material will also work.)

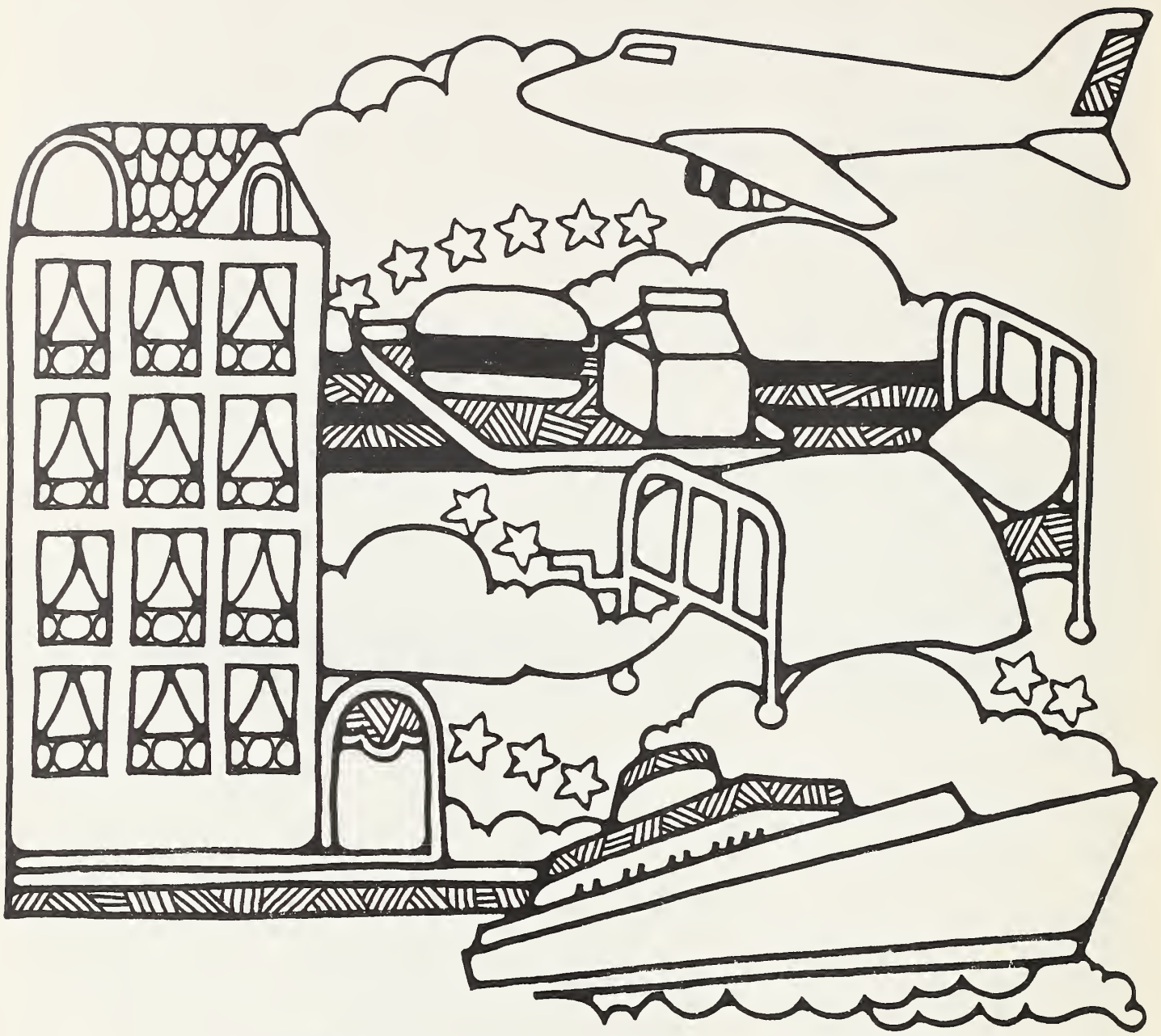
3 Place one piece of illustration board on top of another, joining the two with a piece of tape at the upper and lower corners on one side, as shown. (4-inch pieces of filament or plastic tape work well. Masking tape can also be used). Repeat the process to make 5 double-panel units.



4 Open one unit of joined panels like a book. Place the orange poster containing the words "meat and poultry . . . for you" face up on the left panel and the other orange poster on the right panel. An easy way to affix the posters to the panels is to run a wing-fastener through a hole at each of the 4 corners, spreading the fastener on the back side, as shown. (The tape hinges will be given extra strength if the fasteners are put directly through them). Stagger the fasteners somewhat, so the left and right panels can be completely closed like a book.

!

5 Now you're ready to set up your exhibit as in the photograph above. A 10-foot or two 5-foot tables work well. The posters (mounted or unmounted) can also be used individually on easels or bulletin boards.



help for volume feeders

By Herbert R. Gantz

WHAT DO A CAFETERIA, steamship line, hotel, airline, and hospital have in common? Right—they are all volume feeders—serving meals to hundreds or thousands of people every day. And to make their job of buying food easier, many of these volume feeders use a unique service offered by USDA's Consumer and Marketing Service. It is called the food acceptance service, and is available to those food buyers who wish an impartial third party to certify that the foods they order actually meet their purchase specifications. In essence, a Government grader or inspector becomes their "eyes and ears." The cost of the service is borne by either the buyer or seller.

Anyone from a single restaurant operator to a mammoth feeding operation—even a retailer—can use C&MS' food acceptance service. In fact, the service can handle unusual requests or customers—such as a zoo, which requires special foods for its animals, or

a steamship line which requires fresh fruits and vegetables that mature on different days through the duration of a cruise.

There are some 800 foods which can be certified under this food acceptance service. These are grouped into six categories to correspond to the commodity divisions or branches in C&MS. They are: poultry and eggs, meat and meat products, dairy products, fresh fruits and vegetables, processed fruits and vegetables, and grain products.

If you'd like to find out how the food acceptance service can help you as a food buyer, contact the appropriate C&MS grading representative in your area to discuss with him what you want to buy. You can probably locate him in the phone book under "U.S. Government" listings. He would appear under the U.S. Department of Agriculture heading, and under that, the Consumer and Marketing Service listing. If you cannot locate a grading representative nearby, write to the appropriate commodity division in Washington, D.C.

Once you contact the appropriate C&MS grading representative, he will help translate your needs into exact specifications, based on official USDA grade standards as well as your own specific requirements. These specifications can then be used for letting a contract or calling for bids from several suppliers.

In the contract with your supplier, you can specify that all purchases must be certified by C&MS. Under the contract, any foods which do not meet your specifications would have to be reworked or a new shipment provided.

Following is some specific information about each of C&MS' six food acceptance service programs:

• *The acceptance service for poultry and eggs.* This service covers poultry, eggs, and egg products (frozen and dried). Specifications for poultry usually include kind, type, class, size or weight, U.S. grade, packaging, and transportation. For shell eggs, specifications include U.S. grade and weight (size), and the packaging date. Specifications for egg products may include type (such as whole eggs, whites, yolks, etc.), packaging, and official USDA inspection.

The Washington, D. C. headquarters address is Poultry Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

• *The acceptance service for meat and meat products.* This service is based on USDA-approved purchase specifications such as "Institutional Meat Purchase Specifications," commonly called "IMPS." IMPS are available for beef, lamb and mutton, veal and calf, pork, cured pork, cured beef, edible by-products, and portion-cut meats. The IMPS detail specifications for USDA grade, cut, trim, type of refrigeration (chilled or frozen), weight and other factors.

The Washington, D.C. headquarters address is Livestock Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

• *The acceptance service for dairy products.* This service may be used for butter, cheese, and dried milks. Purchase specifications for butter include U.S. grade and whether the butter is to be shipped in bulk, prints, or patties. For cheese (Cheddar and Swiss), the product may be ordered by type of cure desired, and by U.S. grade. For other natural cheeses (including Roquefort, Blue, Muenster, and Cottage cheese), the product may be ordered on a "Satisfactory Quality" basis. This means the cheese will be inspected for condition, flavor, and other desirable characteristics.

Under the dairy acceptance service, you may also buy dried milk (including whole, nonfat, or buttermilk) by specification. Grading includes determination of butterfat percentage, moisture, solubility, and bacteria count.

Other dairy products, including ice cream mixes, evaporated milk, and malted milk may be checked under the dairy acceptance service for any number of factors decided upon by you.

The Washington, D.C. headquarters address is Dairy Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

• *The acceptance service for fresh fruits and vegetables.* Fresh fruits and vegetables are generally checked under this service for condition, maturity, shape, color, and freedom from defects, including decay. Purchase specifications may include any or all of these factors.

The Washington, D.C. headquarters address is Fresh Products Standardization and Inspection Branch, Fruit and Vegetable Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

• *The acceptance service for processed fruits and vegetables.* This service is similar to its sister service for fresh fruits and vegetables. Purchase specifications may include the kind of products (including frozen, dried, dehydrated, or canned), U.S. grade, color, uniformity of size and shape, freedom from defects, tenderness, texture, and flavor.

The Washington, D.C. headquarters address is Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

• *The acceptance service for grain products.* This service is available for a wide range of grain products, including flour, cornmeal, salad oils, rice, dry beans and peas, cookies, crackers, and noodles. Purchase specifications may include baking quality and vitamin content (for flour and corn meal), purity (for salad oils), degree of milling (for rice), and color (for beans and peas).

The headquarters address is Grain Division, Consumer and Marketing Service, U.S. Department of Agriculture, 6505 Belcrest Rd., Hyattsville, Md. 20782.

The criteria listed above can be tailored to any specific buying situation you might have in mind. The nominal cost of the service, moreover, will be more than offset by the assurance that the food you order will meet your purchase specifications and will be consistent in quality. □

The author is an information specialist, Information Division, C&MS, USDA.

what would JOHNNY APPLESEED say now?

By Howard Weatherspoon

JOHNNY APPLESEED COULD never have imagined all that is being done with apples these days. In his time, people cooked their own applesauce from fresh apples, and the only time they could enjoy applesauce and apple pie was when apples were in season. They could make their own apple juice or cider, but this lasted only until the juice eventually turned to vinegar.

We are luckier today. We can buy canned applesauce year round, and, if fresh apples aren't available, all we need do is buy a can of apple slices for a delicious apple pie.

We also can buy clarified, pasteurized apple juice that won't turn to vinegar if kept in the sealed container, frozen apple slices, canned whole apples, and artificially colored, spiced apple rings—not to mention apple butter and apple jelly of consistently good quality.

Can you picture the armed forces or restaurants making their own applesauce? It would take a lot of time to peel, core, and slice all those apples, but they don't have to. They can buy dried apple slices or chunks, or "instant" applesauce (flakes or powder). Of course, they buy canned applesauce too, but the dried form is lighter and takes up less space when these considerations are important.

Dehydrofrozen apple slices and pieces are also available to bakeries and other institutions. These products have been partially dried and then frozen.

Of all these apple products, applesauce is first in sales. Available in a chunky texture as well as the regular pureed form, it may also be spiced or combined with raspberries, strawberries, pineapple, apricots, or other fruits. Not only is applesauce good by itself, it is practically a must with roast pork or pork chops and is a popular ingredient for cakes and cookies.

Apple juice is second in sales. It is sold canned and frozen, single strength and concentrated. It is also mixed with other fruit juices, such as cranberry and grape, and is used to make both apple jelly and mixed fruit jelly.

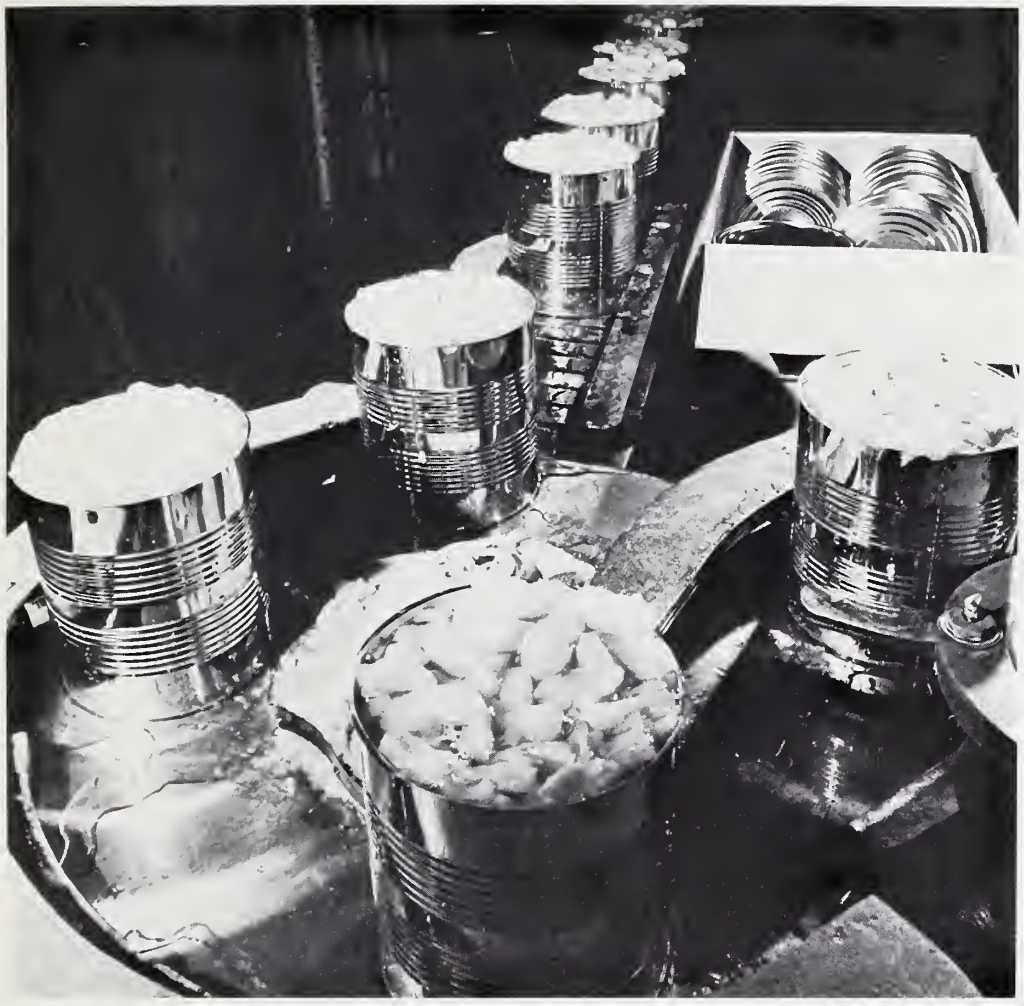
Next is apple butter. A favorite with children, this delicious spread is sweeter and spicier than applesauce. If you're in a sandwich rut, try some apple butter for a delightful change.

Canned apples have also found a place in America's heart. You can find canned slices and chunky pieces as well as canned whole baked apples.

Sometimes a small quantity of dried apple slices are in the dried fruit section of your grocery store. These can be eaten as they come from the package or cooked with other dried fruits for a tasty compote. They are convenient to take on trips for an energy-packed snack.

Frozen or dehydrofrozen apple slices and pieces are currently sold only to bakeries, restaurants, and other institutions to make applesauce and apple cakes and pastries.

The Fruit and Vegetable Division of USDA's Consumer and Marketing



USDA inspector (far left) weighs apple slices to be sure the minimum drained weight for the can size has been met. He also checks the color, flavor, and uniformity of size of the slices and looks for defects. After they are sealed with lids, these cans of apple slices (left) are heated in huge pressure cookers. The end result is crisp apple slices ready to be baked in pies and pastries.

Service has quality standards for and provides inspection to certify the quality of all these products except the newest, dehydrofrozen apples.

C&MS revises its standards from time to time to keep them up to date. Last year, for example, the U.S. grade standards for canned applesauce were revised to conform with new Food and Drug Administration standards of identity, and to update USDA's standards in line with current packing practices.

The revised quality standards provide for grading chunky style applesauce—which is increasingly popular—and applesauce which has been spiced or artificially colored or flavored. Previously, the standards applied only to the regular style applesauce with its natural color and flavor. Now, the other relatively new applesauce styles can also qualify for U.S. Grades A and B if they meet the requirements.

Top quality, U.S. Grade A, applesauce—no matter what the style—must have the following characteristics:

- A bright, practically uniform color.
- A good texture with little liquid separation when removed from the can or jar.
- A good flavor. Natural flavor applesauce must have a good sugar-acid balance and be free from undesirable flavors or aromas. In flavored and spiced styles, the flavoring or spice must not be too strong.
- Relative freedom from defects such as discolored apple particles, seed particles, and peel.

Although Federal inspection for quality of applesauce and other foods is voluntary, many processors use USDA's standards to determine the quality of their products.

If you find a U.S. grade name on the label, the product has been officially graded under USDA continuous inspection. If the label says just "Grade A" and not "*U.S.* Grade A," the product may not have been officially graded, but it should meet the quality standards set by USDA for U.S. Grade A.

Nearly 70 percent of the apples for applesauce are grown in the eastern United States. Most applesauce is made from a blend of two or more apple varieties.

Applesauce and the other apple products might be called convenience foods. They come either ready-to-eat or easy to prepare. The processors have done all the work for you.

USDA looks out for you, too, by setting quality standards for these products. If there's an official grade mark on the label, you can be sure USDA has checked the quality for you. □

The author is a marketing specialist, Standardization Section, Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, C&MS, USDA.

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cover story

The recently enacted Egg Products Inspection Act will affect many phases of the egg marketing system. See pages 2 through 9.

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